Calibration Report: Pyrometer (Infrared Radiation Thermometer) S/N: 1414

1 September 2010

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Hampton, Virginia

Summary

Calibration date: 1 Sep 2010 Next Calibration date: 1 Sep 2011

A collection, analysis and calibration of data from a Heitronics Pyrometer (Infrared Radiation Thermometer or IRT), S/N: 1414, has been completed. The calibration was performed by Wintronics, Inc. These data were collected by Wintronics on 1 September 2010.

Model: KT19.85 Serial Number: 1414

The test data presented in table format is displayed on the next page. The deviation in degrees Celsius was within tolerance "as received" and "outgoing". Since this IRT will be used as a sea surface temperature measurement device, the numbers of most value are between 0-40 degrees C (273.15-313.15 Kelvin). It is determined an offset of +0.3 degrees C (0.30 Kelvin) will be applied to instrument data. Wintronics, Inc. quality program is registered to ISO 9001:2000. Traceability is achieved through calibrations to NIST (National Institute of Standards and Technology) or compared to consensus standards.

The following pages provide more detail into the calibration process and results.

Application: Standard Campbell datalogger program for KT19.85 pyrometer.

Wintronics, Inc.

50 Division Avenue Millington, NJ 07946

Phone: (908) 647-0144 Fax: (908) 647-8379

Certificate of Calibration

ANSI/NCSL Z540-1-1994

Certificate No.:

J0086044

Description: Infrared Thermometer Manufacturer: Heitronics

1414 KT19.85 Serial No: Model No:

Customer:

SSAI PO-0000271

Customer PO:

Customer Asset No:

Temperature (C): 23 Humidity (%): 38 Procedure: W60985 Technician:

PLW

Date Cal: 9/1/2010 Date Due:

9/1/2011

The manufacturer's specifications of the above instrument have been confirmed by comparison to standards which are regularly calibrated using accepted values of natural physical constants, ratio type self-calibrating techniques, comparison to standards which are traceable to NIST, or compared to consensus standards. Wintronics' calibration procedures comply with ANSI/NCSL Z540-1 & MIL-STD-45662A. Wintronics' Quality program is registered to ISO9001:2000.

As received condition: As shipped condition: In Tolerance

Type of Calibration:

In Tolerance

Normal

Calibration Standards

				Cambranon		
Manufacturer	Model	Description	Asset #	Date	Date Due	Cert. No.
Hart Scientific	5610-9	Thermistor Probe	W195	4/13/2010	4/13/2011	J0084324
Hart Scientific	2563	Module, Thermistor	W143	8/18/2010	8/18/2011	J0086252



	^{Job:} J0086044					
Company:	SSAI	P.O. Box 337, Millington, N Mfg: Heitronics			Date: 09/01/10	
S/N: 1414		Cust. A	sset#:		Tech: PLW	
Function or Range	Nominal Value or Cal Range 化	As Received ر	Outgoing	Tolerance	TUR	
Degrees C	0.0°C 273.15	+0.6 273.75	+0.2 273.35	±0.71°C		
	10.0°C 283.15	10.6 283.75	10.3 283.∜5	±0.64°C		
	20.0°C 35.15	20.4 393.55	20.4 2935	±0.57°C		
	30.0°C }63,15	30.5 363.55	30.5 30365	±0.50°C		
	40.0°C 313.15	40.1 3 _{13.} 35	40.1	±0.57°C		
	50.0°C 323.15	50.0 323 15	50.2 33333	±0.64°C		
	60.0°C 333.15	60.0 333.15	60.3 333.45	±0.71°C		
	70.0°C 343,5		70.5 35 55	±0.78°C		
	\$0.0°C 35315		80.6 353,75	±0.85°C ±0.92°C		
	90.0°C 362 €	90.3 343.45	90.8 363.45 100.8 573.45	±0.92°C		
	100.0°C ∋	100.3	100.8 30.35	10.33 0		
		4000	1910	No Tolerance		
	Cal Factor	1890	1310	(3		
		MA A SE LES O UNOP	50, 1.5/5: 0.3°C nifset	Ferex, 0.3(.3), 12.3/.3)	adala	
		My Note: use 0-40°C	(0.30 kelin), add 40 ks sin	The state of the s	eddop	
		(27) 15 - 31) 15) ON 1:110	119. of out 10: my from 0-40+	numbers in () & divide by !		
		usi to as SST.	digidly of	is your offset, which is		
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Additional Comments: Any Test Uncertainty Ratio (TUR) that is less than 4:1 will appear under the "TUR" heading. If the TUR meets or exceeds 4:1, the field is left blank. Standards listed used to monitor temperature of Mester ME20.03 Blackbody Calibration Source.